

Defining Priority Areas for Biodiversity Conservation to Support for Zoning Protected Areas: A Case Study from Vietnam

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Abstract : There has been an increasing need for methods to define priority areas for biodiversity conservation since the effectiveness of biodiversity conservation in protected areas largely depends on the availability of material resources. The identification of priority areas requires the integration of biodiversity data together with social data on human pressures and responses. However, the deficit of comprehensive data and reliable methods becomes a key challenge in zoning where the demand for conservation is most urgent and where the outcomes of conservation strategies can be maximized. In order to fill this gap, the study applied an environmental model Condition-Pressure-Response to suggest a set of criteria to identify priority areas for biodiversity conservation. Our empirical data has been compiled from 185 respondents, categorizing into three main groups: governmental administration, research institutions, and protected areas in Vietnam by using a well - designed questionnaire. Then, the Analytic Hierarchy Process (AHP) theory was used to identify the weight of all criteria. Our results have shown that priority level for biodiversity conservation could be identified by three main indicators: condition, pressure, and response with the value of the weight of 26%, 41%, and 33%, respectively. Based on the three indicators, 7 criteria and 15 sub-criteria were developed to support for defining priority areas for biodiversity conservation and zoning protected areas. In addition, our study also revealed that the groups of governmental administration and protected areas put a focus on the 'Pressure' indicator while the group of Research Institutions emphasized the importance of 'Response' indicator in the evaluation process. Our results provided recommendations to apply the developed criteria for identifying priority areas for biodiversity conservation in Vietnam.

Keywords : biodiversity conservation, condition-pressure-response model, criteria, priority areas, protected areas

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